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**1** [Combining multiple, large-scale resources in a reusable lexicon for natural language generation](#)

Hongyan Jing, Kathleen McKeown

Full text available: [pdf\(694.15 KB\)](#)  
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Additional Information: [full citation](#), [abstract](#), [references](#)

A lexicon is an essential component in a generation system but few efforts have been made to build a rich, large-scale lexicon and make it reusable for different generation applications. In this paper, we describe our work to build such a lexicon by combining multiple, heterogeneous linguistic resources which have been developed for other purposes. Novel transformation and integration of resources is required to reuse them for generation. We also applied the lexicon to the lexical choice and rea ...

**2** [Word association norms, mutual information, and lexicography](#)

Kenneth Ward Church, Patrick Hanks

March 1990 **Computational Linguistics**, Volume 16 Issue 1

Full text available: [pdf\(856.69 KB\)](#)  
[Publisher Site](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#)

The term *word association* is used in a very particular sense in the psycholinguistic literature. (Generally speaking, subjects respond quicker than normal to the word *nurse* if it follows a highly associated word such as *doctor*. ) We will extend the term to provide the basis for a statistical description of a variety of interesting linguistic phenomena, ranging from semantic relations of the doctor/nurse type (content word/content word) to lexico-syntactic co-occurrence const ...

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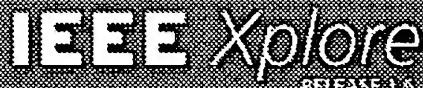
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### 1 Automatic extraction of lexical relations from Chinese machine reading dictionary

*Su-Jian Li; Qun Liu; Shuo Bai; Xue-Qi Cheng;*  
Systems, Man, and Cybernetics, 2001 IEEE International Conference on , Vol. 4 , 7-10 Oct. 2001  
Pages:2210 - 2214 vol.4

[\[Abstract\]](#)   [\[PDF Full-Text \(369 KB\)\]](#)   **IEEE CNF**

### 2 ExtrAns: Extracting answers from technical texts

*Molla, D.; Schwitter, R.; Rinaldi, F.; Dowdall, J.; Hess, M.;*  
Intelligent Systems, IEEE [see also IEEE Expert] , Volume: 18 , Issue: 4 , Jul 2003  
Pages:12 - 17

[\[Abstract\]](#)   [\[PDF Full-Text \(807 KB\)\]](#)   **IEEE JNL**

### 3 The clustering of natural terms: an adaptive resonance theory model

*Dunbar, G.;*  
Neural Networks, 1999. IJCNN '99. International Joint Conference on , Volume: 6 , 10-16 July 1999  
Pages:4362 - 4364 vol.6

[\[Abstract\]](#)   [\[PDF Full-Text \(260 KB\)\]](#)   **IEEE CNF**

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Relevance scale


**1 Automating the linking of content and concept**

Robert Tansley, Colin Bird, Wendy Hall, Paul Lewis, Mark Weal

**October 2000 Proceedings of the eighth ACM international conference on Multimedia**

 Full text available: [pdf\(278.67 KB\)](#) Additional Information: full citation, abstract, references, index terms

In previous work we have described a multimedia system, MAVIS 2, supporting content and concept based retrieval and navigation. A central component of the system is a multimedia thesaurus in which media content is associated with appropriate concepts in a semantic layer. A major challenge is identifying and constructing these associations in a particular application without requiring a huge amount of manual effort. In this paper we propose a two phase approach to the problem. In the first p ...

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Relevance scale

### 1 [Using semantic contents and WordNet in image retrieval](#)

Y. Alp Aslandogan, Chuck Thier, Clement T. Yu, Jon Zou, Naphtali Rishe

July 1997 **ACM SIGIR Forum , Proceedings of the 20th annual international ACM SIGIR conference on Research and development in information retrieval,**

Volume 31 Issue SI

Full text available: [pdf\(1.62 MB\)](#)

Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)



### 2 [A model of multimedia information retrieval](#)

Carlo Meghini, Fabrizio Sebastiani, Umberto Straccia

September 2001 **Journal of the ACM (JACM)**, Volume 48 Issue 5

Full text available: [pdf\(5.69 MB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)



Research on multimedia information retrieval (MIR) has recently witnessed a booming interest. A prominent feature of this research trend is its simultaneous but independent materialization within several fields of computer science. The resulting richness of paradigms, methods and systems may, on the long run, result in a fragmentation of efforts and slow down progress. The primary goal of this study is to promote an integration of methods and techniques for MIR by contributing a conceptual model ...

**Keywords:** Description logics, fuzzy logics, multimedia information retrieval

### 3 [SemQL: a semantic query language for multidatabase systems](#)

Jeong-Oog Lee, Doo-Kwon Baik

November 1999 **Proceedings of the eighth international conference on Information and knowledge management**

Full text available: [pdf\(950.76 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)



An essential prerequisite to achieving interoperability in multidatabase systems is to be able to identify semantically equivalent or related data items in component databases. Another problem in multidatabase systems is allowing users to handle information from different databases that refer to the same realworld entity. In this paper, we provide semantic networks so that multidatabase systems can detect and resolve semantic heterogeneities among component databases. And we provide a seman ...

**Keywords:** multidatabase, semantic network, semantic query language, wordnet

4 Evaluating strategies and systems for content based indexing of person images on the Web

Yuksel Alp Aslandogan, Clement T. Yu

October 2000 **Proceedings of the eighth ACM international conference on Multimedia**

Full text available:  pdf(944.69 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Content based indexing of multimedia has always been a challenging task. The enormity and the diversity of the multimedia content on the web adds another dimension to this challenge. In this paper, we examine ways of combining visual and textual information for content based indexing of multimedia on the web. In particular, we examine different methods of combining evidences due to face detection, Text/HTML analysis and face recognition for identifying person images. We provide experimental e ...

**Keywords:** Dempster-Shafer theory, content based image retrieval, evidence combination, face detection and recognition, web image retrieval

5 A hierarchical access control model for video database systems

Elisa Bertino, Jianping Fan, Elena Ferrari, Mohand-Said Hacid, Ahmed K. Elmagarmid, Xingquan Zhu

April 2003 **ACM Transactions on Information Systems (TOIS)**, Volume 21 Issue 2

Full text available:  pdf(6.27 MB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Content-based video database access control is becoming very important, but it depends on the progresses of the following related research issues: (a) efficient video analysis for supporting semantic visual concept representation; (b) effective video database indexing structure; (c) the development of suitable video database models; and (d) the development of access control models tailored to the characteristics of video data. In this paper, we propose a novel approach to support multilevel acce ...

**Keywords:** Video database models, access control, indexing schemes

6 Semantically indexed hypermedia: linking information disciplines

Douglas Tudhope, Daniel Cunliffe

December 1999 **ACM Computing Surveys (CSUR)**

Full text available:  pdf(29.76 KB)

Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

**Keywords:** Dublin core, metadata, semantic distance measures, semantic index

7 Giving meanings to WWW images

Heng Tao Shen, Beng Chin Ooi, Kian-Lee Tan

October 2000 **Proceedings of the eighth ACM international conference on Multimedia**

Full text available:  pdf(372.87 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#)

Images are increasingly being embedded in HTML documents on the WWW. Such documents over the WWW essentially provides a rich source of image collection from which user can query. Interestingly, the semantics of these images are typically described by their surrounding text. Unfortunately, most WWW image search engines fail to exploit these image semantics and give rise to poor recall and precision performance. In this paper, we propose a novel image representation model called Weigh ...

**Keywords:** WWW, image representation, image retrieval, relevance feedback, semantic similarity

**8 A system for effective content based image retrieval**

Y. Alp Aslandogan, Chuck Thier, Clement Yu

February 1997 **Proceedings of the fourth ACM international conference on Multimedia**

Full text available:  pdf(424.59 KB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

**Keywords:** content based image retrieval, multimedia systems

**9 Finding semantically related images in the WWW**

Heng Tao Shen, Beng Chin Ooi, Kian-Lee Tan

October 2000 **Proceedings of the eighth ACM international conference on Multimedia**

Full text available:  pdf(162.51 KB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

**10 Posters and Short Papers: Technique for eliminating irrelevant terms in term rewriting for annotated media retrieval**

Y. C. Park, P. K. Kim, F. Golshani, S. Panchanathan

October 2001 **Proceedings of the ninth ACM international conference on Multimedia**

Full text available:  pdf(2.35 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

In this paper, we present an efficient term rewriting technique that computes a degree of term to domain relevance. The proposed method resolves the problems in ontology integrated concept search. Those problems are (i) Pre-defined concept classes in ontology are not relevant to users (no proper concept class for a target annotation has not found). (ii) Too many similar concept classes are provided to a user therefore, a user may fail to choose a correct semantic class for a target annotation (o ...)

**11 Meeting experience: Experiential meeting system**

Ramesh Jain, Pilho Kim, Zhao Li

November 2003 **Proceedings of the 2003 ACM SIGMM workshop on Experiential telepresence**

Full text available:  pdf(388.54 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

We are developing experiential meeting systems to allow people to be tele-present in a remote meeting and to be able to review proceedings of a meeting or of several meetings using all the data recorded in a meeting. We consider this as a problem in management and experiential access to all multimedia data acquired in a meeting. The data includes video, audio, presentations, text material, databases and websites related to people and the discussions in the meeting, and any other data or informat ...

**Keywords:** data event, elemental event and domain event, event, event based data processing, experiential systems, meeting

**12 A unified framework for semantics and feature based relevance feedback in image retrieval systems**

Ye Lu, Chunhui Hu, Xingquan Zhu, HongJiang Zhang, Qiang Yang

**October 2000 Proceedings of the eighth ACM international conference on Multimedia**

Full text available: [pdf\(696.54 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

The relevance feedback approach to image retrieval is a powerful technique and has been an active research direction for the past few years. Various ad hoc parameter estimation techniques have been proposed for relevance feedback. In addition, methods that perform optimization on multi-level image content model have been formulated. However, these methods only perform relevance feedback on the low-level image features and fail to address the images' semantic content. In this paper, we propose ...

**Keywords:** image retrieval, image semantics, multimedia database, relevance feedback

**13 Theory of keyblock-based image retrieval**

April 2002 **ACM Transactions on Information Systems (TOIS)**, Volume 20 Issue 2

Full text available: [pdf\(2.14 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#), [review](#)

The success of text-based retrieval motivates us to investigate analogous techniques which can support the querying and browsing of image data. However, images differ significantly from text both syntactically and semantically in their mode of representing and expressing information. Thus, the generalization of information retrieval from the text domain to the image domain is non-trivial. This paper presents a framework for information retrieval in the image domain which supports content-based q ...

**Keywords:** clustering, codebook, content-based image retrieval, keyblock

**14 Semantic based image retrieval: a probabilistic approach**

Ben Bradshaw

October 2000 **Proceedings of the eighth ACM international conference on Multimedia**

Full text available: [pdf\(1.05 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

This paper describes an approach to image retrieval based on the underlying semantics of images. To extract these semantics a hierarchical, probabilistic approach is proposed. The labels that are extracted in this case are man-made, natural, inside and outside. The hierarchical framework combines class likelihood probability estimates across a number of levels to form a posterior estimate of the probability of class membership. Unlike previous work in this field, the proposed algorithm can de ...

**Keywords:** image retrieval, image statistics, semantic image analysis

**15 Content-based image retrieval for multimedia databases: Image database retrieval utilizing affinity relationships**

Mei-Ling Shyu, Shu-Ching Chen, Min Chen, Chengcui Zhang, Kanoksri Sarinnapakorn

November 2003 **Proceedings of the first ACM international workshop on Multimedia databases**

Full text available: [pdf\(554.57 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Recent research effort in Content-Based Image Retrieval (CBIR) focuses on bridging the gap between low-level features and high-level semantic contents of images as this gap has become the bottleneck of CBIR. In this paper, an effective image database retrieval framework using a new mechanism called the Markov Model Mediator (MMM) is presented to meet this demand by taking into consideration not only the low-level image features, but

also the high-level concepts learned from the history of user's ...

**16 Posters: Semantic-meaningful content-based image retrieval in wavelet domain**

Yongqing Sun, Shinji Ozawa

November 2003 **Proceedings of the 5th ACM SIGMM international workshop on Multimedia information retrieval**

Full text available:  pdf(359.09 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

In this paper, we propose a semantic-meaningful approach for region-based image retrieval in image database. Our retrieval system is based on wavelet transform for its decomposition property similarity with human visual processing. At first, with the fact that semantic region segmentation desires low frequency resolution, pixel clustering algorithm is applied for image partition in the Low-Low(LL) frequency subband of image wavelet transform. Secondly, with the fact that accurate region i ...

**Keywords:** content-based image retrieval, hierarchical feature vector, semantic image segmentation, wavelet transform

**17 Content-based retrieval: Knowing a tree from the forest: art image retrieval using a society of profiles**

Kai Yu, Wei-Ying Ma, Volker Tresp, Zhao Xu, Xiaofei He, HongJiang Zhang, Hans-Peter Kriegel  
November 2003 **Proceedings of the eleventh ACM international conference on Multimedia**

Full text available:  pdf(913.29 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

This paper aims to address the problem of art image retrieval (AIR), which aims to help users find their favorite painting images. AIR is of great interests to us because of its application potentials and interesting research challenges---the retrieval is not only based on painting contents or styles, but also heavily based on user *preference profiles*. This paper describes the collaborative ensemble learning, a novel statistical learning approach to this task. It at first applies probabil ...

**Keywords:** art image retrieval, collaborative ensemble learning

**18 iFind---a system for semantics and feature based image retrieval over Internet**

Hongjiang Zhang, Liu Wenjin, Chunhui Hu

October 2000 **Proceedings of the eighth ACM international conference on Multimedia**

Full text available:  pdf(323.08 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

iFind© (v 1.0) is a web based image retrieval system developed at Microsoft Research China. It provides the functionalities of keyword based image search, query by image example, category based image browsing, relevance feedback, and semi-automatic image annotation. The key technology in the system is the integrated semantics and feature based image retrieval and relevance feedback approach, which will be presented in our paper in the ACM Multimedia 2000 Proceedings [1]. When the ...

**19 Session 9: image indexing and retrieval: On the choice of similarity measures for image retrieval by example**

Jean-Philippe Tarel, Sabri Boughorbel

December 2002 **Proceedings of the tenth ACM international conference on Multimedia**

Full text available:  pdf(895.40 KB) Additional Information: [full citation](#), [abstract](#), [references](#)

In image retrieval systems, a variety of simple similarity measures are used. The choice for

one similarity measure or another is generally driven by an experimental comparison on a labeled database. The drawback of such an approach is that, while a large number of possible similarity measures can be tested, we do not know how to extend from the obtained results. However, the choice of a good similarity measure leads to noticeable better results. It is known that this choice is related to the va ...

20 [Information access and retrieval: Color patterns for pictorial content description](#)

Daniela Stan, Ishwar K. Sethi

March 2002 **Proceedings of the 2002 ACM symposium on Applied computing**

Full text available:  [pdf\(1.10 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

In this paper, we propose a new type of image feature, which consists of *patterns of colors and intensities* that capture the latent associations among images and primitive features in such a way that the noise and redundancy are minimized. Incorporating our feature model into a Content-based Image Retrieval (CBIR) system moves the research in image retrieval beyond simple matching of images based on their primitive features and creates a ground for learning image semantics from visual con ...

**Keywords:** annotation, clustering, color patterns, content-based image retrieval, latent semantic indexing

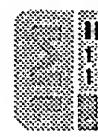
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Multimedia and Expo, 2002. ICME '02. Proceedings. 2002 IEEE International Conference on , Volume: 1 , 26-29 Aug. 2002

Pages:189 - 192 vol.1

[\[Abstract\]](#)   [\[PDF Full-Text \(407 KB\)\]](#)   IEEE CNF**2 On multiple classifier systems for pattern recognition***Ho, T.K.; Hull, J.J.; Srihari, S.N.;*

Pattern Recognition, 1992. Vol.II. Conference B: Pattern Recognition Methods and Systems, Proceedings., 11th IAPR International Conference on , 30 Aug.- Sept. 1992

Pages:84 - 87

[\[Abstract\]](#)   [\[PDF Full-Text \(384 KB\)\]](#)   IEEE CNF**3 Toward large-area mosaicing for underwater scientific applications***Pizarro, O.; Singh, H.;*

Oceanic Engineering, IEEE Journal of , Volume: 28 , Issue: 4 , Oct. 2003

Pages:651 - 672

[\[Abstract\]](#)   [\[PDF Full-Text \(4830 KB\)\]](#)   IEEE JNL**4 An automatic diagnostic system for CT liver image classification***E-Liang Chen; Pau-Choo Chung; Ching-Liang Chen; Hong-Ming Tsai; Chein-I Chang;*

Biomedical Engineering, IEEE Transactions on , Volume: 45 , Issue: 6 , June

Pages:783 - 794

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[Abstract] [\[PDF Full-Text \(376 KB\)\]](#) IEEE JNL

**5 Decision combination in multiple classifier systems**

*Tin Kam Ho; Hull, J.J.; Srihari, S.N.;*

Pattern Analysis and Machine Intelligence, IEEE Transactions on , Volume:

16 , Issue: 1 , Jan. 1994

Pages:66 - 75

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[Abstract] [\[PDF Full-Text \(988 KB\)\]](#) IEEE JNL

**6 A Web-based retrieval system for 3D polygonal models**

*Suzuki, M.T.;*

IFSA World Congress and 20th NAFIPS International Conference, 2001. Joint

9th , Volume: 4 , 25-28 July 2001

Pages:2271 - 2276 vol.4

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[Abstract] [\[PDF Full-Text \(532 KB\)\]](#) IEEE CNF

**7 A similarity retrieval of 3D polygonal models using rotation invariant shape descriptors**

*Suzuki, M.T.; Kato, T.; Otsu, N.;*

Systems, Man, and Cybernetics, 2000 IEEE International Conference on , Vol:

4 , 8-11 Oct. 2000

Pages:2946 - 2952 vol.4

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[Abstract] [\[PDF Full-Text \(615 KB\)\]](#) IEEE CNF

**8 Flexible solutions for low-level visual feature descriptors in MPEG-7**

*Ohm, J.-R.;*

Consumer Electronics, 2000. ICCE. 2000 Digest of Technical Papers. Internati

Conference on , 13-15 June 2000

Pages:282 - 283

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[Abstract] [\[PDF Full-Text \(288 KB\)\]](#) IEEE CNF

**9 A semantic classification and composite indexing approach to robust image retrieval**

*Zijun Yang; Jay Kuo, C.-C.;*

Image Processing, 1999. ICIP 99. Proceedings. 1999 International Conference on , Volume: 1 , 1999

Pages:134 - 138 vol.1

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[Abstract] [\[PDF Full-Text \(516 KB\)\]](#) IEEE CNF

**10 Face recognition based on depth and curvature features**

*Gordon, G.G.;*

Computer Vision and Pattern Recognition, 1992. Proceedings CVPR '92., 1992

Computer Society Conference on , 15-18 June 1992

Pages:808 - 810

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[Abstract] [\[PDF Full-Text \(320 KB\)\]](#) IEEE CNF

**11 Relaxation neural network for nonorthogonal image transforms**

*Daugman, J.G.;*  
Neural Networks, 1988., IEEE International Conference on , 24-27 July 1988  
Pages:547 - 560 vol.1

[Abstract] [PDF Full-Text (2080 KB)] IEEE CNF

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**12 An efficient color representation for image retrieval**  
*Yining Deng; Manjunath, B.S.; Kenney, C.; Moore, M.S.; Shin, H.;*  
Image Processing, IEEE Transactions on , Volume: 10 , Issue: 1 , Jan. 2001  
Pages:140 - 147

[Abstract] [PDF Full-Text (224 KB)] IEEE JNL

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**13 3D face recognition using multiple features for local depth information**  
*Lee, Y.; Yi, T.;*  
Video/Image Processing and Multimedia Communications, 2003. 4th EURASIP Conference focused on , Volume: 1 , 2-5 July 2003  
Pages:429 - 434 vol.1

[Abstract] [PDF Full-Text (397 KB)] IEEE CNF

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**14 Bio-inspired flight control and visual search with CNN technology**  
*Rekeczky, C.; Balya, D.; Timar, G.; Szatmari, I.;*  
Circuits and Systems, 2003. ISCAS '03. Proceedings of the 2003 International Symposium on , Volume: 3 , 25-28 May 2003  
Pages:III-774 - III-777 vol.3

[Abstract] [PDF Full-Text (370 KB)] IEEE CNF

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**15 Semantic knowledge construction from annotated image collection**  
*Benitez, A.B.; Shih-Fu Chang;*  
Multimedia and Expo, 2002. ICME '02. Proceedings. 2002 IEEE International Conference on , Volume: 2 , 26-29 Aug. 2002  
Pages:205 - 208 vol.2

[Abstract] [PDF Full-Text (569 KB)] IEEE CNF

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*Tseng, B.L.; Ching-Yung Lin; Smith, J.R.;*  
Multimedia, IEEE , Volume: 11 , Issue: 1 , Jan.-Feb. 2004  
Pages:42 - 52

[\[Abstract\]](#)   [\[PDF Full-Text \(1247KB\)\]](#)   IEEE JNL**2 A wavelet framework for adapting data cube views for OLAP**

*Smith, J.R.; Chung-Sheng Li; Jhingran, A.;*  
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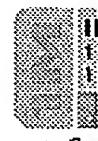
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